

U.S. Application No. 10/537,632 (Attorney Docket No.36211)  
Inventor: Hillforth, Mikael Title: AN APPARATUS FOR DETECTING ANIMALS  
Group Art Unit: 3643; Examiner: Andrea M. Valenti  
Amendment Responsive to Office Action of January 22, 2009

### **Remarks**

This amendment responds to the Office Action of January 22, 2009. Claims 1, 4 through 6, 9, 10, and 13-20 remain in this application. Claims 7 and 8 have been cancelled by this amendment, and their limitations have been included in Claim 1. Claims 9 and 10 have been amended to now depend from claim 1 in view of the incorporation of the limitations of claim 7 therein. Claim 1 is the only independent claim in this application, and claims 4 through 6, 9, 10, and 13 – 20 depend directly or indirectly therefrom. Reconsideration and passage to allowance is courteously requested.

The present application is concerned with an apparatus which is able to detect and count animals. The apparatus is able to detect each animal in an animal passage even if the animals are walking very close to one another (also sometimes called a "cow train"), so that for example the head of an animal is lying on the body part of the animal in front of it. The detection of each animal is possible by using sensors detecting the width of the animals, whereby a signal is sent to a control member when the sensed width is less than a predetermined value. In claim 1 as amended, there are two sensors which are spaced apart so as to sense the same animal at a first and again at a second part of the passage. Moreover, the sensors are spaced apart a distance which is larger than the normal size of the width of the head of an animal, but less than the normal size of the width of the

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body part of the animal to be guided through the passage. The reduction in width indicates that, provided that the animals are walking in the defined direction of transport, the end of the body part of the animal that is in the measuring area of the sensor device is on its way to leave or has left the measuring area, and that the head of a following animal is on its way into the measuring area. Because the head is always of less width than the body part of the animal, a reduction of the width is always sensed between two animals. See, for example, page 3, line 29 to page 4, line 2 of the published PCT application. The control member receives the signal from the sensors and includes a processor which is arranged to count the animals that pass through the animal passage in response to the sensing by the sensors. This inclusion is supported by the written description at page 10, lines 16-24 of the published PCT application.

In the most recent Office Action, claim 1 was rejected under 35 USC §103. It was asserted that a hypothetical combination of U.S. Patent No. 5,673,647 to Pratt and European Patent EP 0561071 to Frey would render the claimed invention obvious to one of ordinary skill in the art. Applicant respectfully traverses that rejection.

The Office Action asserts that the '647 patent to Pratt discloses an apparatus as set forth in the claims with the exception of sensing the width of the animals. For this feature, the Office Action cites the EP 0561071 patent to Frey as disclosing a control member which is arranged to count persons or objects that are passing through a passage and that the sensor according to Frey is

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arranged to measure a dimension parameter in a determined direction, and then send out a signal when the dimension parameter is less than a predetermined value. In Frey, the sensor is described to be able to measure the height of a person or object. The Office Action then concludes that it would have been obvious to modify the Pratt '647 patent by combining the selected features of Frey, resulting in obviousness of the invention as called for in Claim 1.

In rejecting claims under 35 U.S.C. § 103(a), it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In doing so, the Examiner must make the factual determinations set forth in *Graham v. John Deere*, 383 U.S. 1, 17-18 (1966). The Examiner has the initial burden of presenting a *prima facie* case of unpatentability, whether based on prior art or any other ground. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). "If the PTO fails to meet this burden, then the applicant is entitled to the patent." *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). Only if the Examiner satisfies the initial burden of establishing a proper *prima facie* case of obviousness does any burden then shift to the applicant to overcome such a properly formed *prima facie* case with argument and/or evidence. *See In re Kumar*, 418 F.3d 1361, 1366 (Fed. Cir. 2005).

In meeting this initial burden, the Examiner "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d at 1075. Similarly, it "is impermissible ... to pick and choose from any one reference only

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so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.” *In re Wesslau*, 353 F.2d 238, 241 (C.C.P.A. 1965). Thus, as the Federal Circuit has consistently held, “[t]he mere fact that the prior art *may be modified* in the manner suggested by the Examiner does not make the modification obvious unless the prior art *suggests the desirability* of the modification.” *In re Fritch*, 972, F.2d 1260, 1266 (Fed. Cir. 1992) (emphasis added); *see also In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984).

This desirability of making the claimed combination must be found in the prior art, not in the applicant’s disclosure. *See In re Vaeck*, 947 F.2d 488, 490 (Fed. Cir. 1991). Moreover, if the Examiner’s proposed combination renders the prior art invention unsatisfactory for its intended purpose, or *changes its principle of operation*, there can be no *prima facie* case of obviousness. *See* MPEP § 2143.01; *In re Gordon*, 733 F.2d at 902.

Finally, as the United States Supreme Court has recently reiterated, the analysis of the interrelated teachings of the prior art references used in a rejection “should be made explicit.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, No. 04-1350, slip op. at 14, 2007 WL 1237837 (2007). To this end, the Federal Circuit has made clear that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some *articulated reasoning* with

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some *rational underpinning* to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added) (cited with approval in *KSR Int’l Co.*, 550 U.S. slip op. at 14). In the present case, these requirements simply have not been satisfied. Therefore, the rejection of independent claim 1 based on obviousness must be removed.

However, a review of the device according to the teachings of the Frey patent and those of the present invention as set forth in Claim 1 as amended are quite different in function and purpose, and that there is no teaching in Frey which would lead to the invention as claimed.

In the sensor device according to Frey, the light beam that is emitted to the selected location is reflected when a person or object cuts the light beam. However, Frey does not mention that a certain predetermined value of the reflected light beam must be registered before a sensor device sends out a signal to the control member. In reviewing the Frey reference, it appears that the sensor device sends out signals for all persons and objects and that the signals are thereafter sorted by the control member. It is thereby possible to, for example, sort out signals that are below a certain limit value.

In the present application, and in particular claim 1 as amended, the width of the animal is measured at a determined position but it is not until the width of the animal decreases below a predetermined value that a signal is sent out to the control member, the control member thereby recording the passing of an animal. The apparatus of the present invention is thereby able to count

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animals even when they are walking at a close distance from one another. The sensor device and the control member according to Frey are not described to possess this finesse but only appear to have the function of measuring the height of a person or an object that cuts the light beam without the measurement itself being dependent on a certain predetermined value of the height.

Applicant has amended claim 1 to include the limitations of claims 7 and 8, and further added the limitations concerning the processor for processing the signals from the sensors. By including these limitations, as discussed above, the present application is distinguished from, and not obvious in view of the prior art. The sensor device as now claimed includes at least two sensors, which are arranged at separate points at the determined position in the animal passage. Claim 1 calls for the sensors to be located at a distance from each other, wherein that distance between the sensors is larger than the width of the head part of the animal but smaller than the width of the body part of the animal. This arrangement is not shown or suggested by the prior art, nor would any modification to the prior art be predictable in view of the references. The spacing between the first and second sensors does corresponding to the normal size of the body part does not lead to predictable results. Rather, only with the hindsight provided by a review of the applicants disclosure would one skilled in the art be lead to such an arrangement.

Applicant thus respectfully submits that the claims as now amended are in condition for allowance and such is courteously requested. Should the examiner have any issues which may be

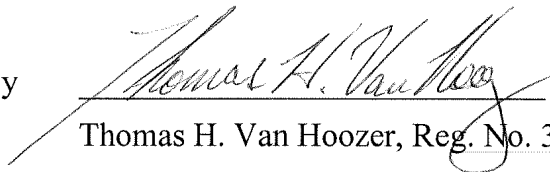
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resolved by a telephone conference, they may be addressed to the undersigned at 1-800-445-  
3460. Any additional fees necessitated by this submission may be charged to Deposit Account  
19-0522.

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